### INTRODUCTION:

Starting in 1999, operators of Community Water Supplies are required to prepare and distribute an Annual Consumer Confidence Report (CCR). The CCR must contain information about the source of the water and it's quality. The EPA published the final CCR Rule on August 19,1998 that established the requirements for the content, format, and distribution of this report.

## SYSTEM INFORMATION:

Public Water System Identification Number: 00300-12.

State Appropriation Permit Number: BA926022(01).

Source Water Type: Ground.

Plant Operator: Carl Smith License Number 1770, Class 5.

## **REGULATORY OVERSIGHT:**

The Maryland Department of the Environment, The Department of Health and Mental Hygiene, and The EPA all maintain oversight of this facility. We work closely with these agencies to safeguard the quality of our drinking water.

## **WATER SOURCE:**

Water is supplied by two wells located on the Center which is part of the Patapsco Valley Watershed. This facility used more than 11 million gallons of water from these two wells in 2009 and we must take steps to lower our water consumption. Additionally you may have notice water being trucked onto the Center from time to time. In the event of a well failure we may use tanker trucks to maintain our supply. This water comes from The Baltimore City Municipal Water Supply and meets all drinking water standards.

# **VIOLATIONS:**

This water plant was not cited for any violations of water quality standards during 2009.



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### SYSTEM IMPROVEMENTS:

During the previous year we have made significant improvements to the water plant which have improve both the quantity of the source water, and the quality of the finished water at this facility. The well pump and the piping in the #1 well were replaced, and the underground water lines from the wells to the water plant were flushed clean, and restored to their original diameter. This made a dramatic improvement in the amount of water being delivered to the plant. The incoming water passes thru multiple filters before it enters the Ion Exchange Unit. We believe this filtration has made the Ion Exchange Unit more efficient in its removal of Radium 226/228 from the source water.

#### WATER TREATMENT:

The following is a review of the water treatment methods used at this facility. Water is pumped from the wells thru a 20 Micron Filter Element, and then passes thru a 10 Micron Filter Element to further remove any particulates from the water before entering The Ion Exchange Unit. From here it passes thru a flow meter and into a 7,000 gallon pre-storage tank located in the water plant which is a part of the main boiler room. As needed, this water is pumped into the elevated storage tower. Between the pre-storage tank and the elevated storage tank some chemical additions are made to the water. The water is disinfected, and a slight adjustment is made to the waters P/H. (acidity/alkalinity) Once in elevated storage the water is ready for use. The point of use filtration on each hot and cold water lines continues to work well and has made a huge improvement in the quality of water being delivered.

### DISINFECTION:

Disinfection is an important step in ensuring that water is safe to drink. Water systems add disinfectants to destroy microorganisms that can cause disease in humans. The Surface Water Treatment Rule requires public water systems to disinfect water obtained from surface supplies or ground water under the influence of surface water. This water system uses a Sodium Hypochlorite solution to disinfect our water supply. Once again, disinfection is required by law and does not reflect in any way on the quality of our water source.



### - PETHANING VONDAGINE MATERIAL

During the pregious year we have made significant improvements to the water plant which have improve both the quantity of the source water, and the quality of the finished water at this facility. The well pump and the piping in the #3 well were replaced, and the underground water lines from the wells to the water plant were flushed clean, and restored to their original diameter. This made a dramatic improvement in the amount of water being delivered to the plant. The incoming water passes thrum multiple filters before it enters the ton Exchange Unit. We believe this filtration has made the lon.

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### CHEMICAL ADDITIVES:

- 1. Sodium Hypochlorite, liquid chlorine, this widely used method of disinfection is required by statute and does not reflect in any way on the quality of our water source.
- 2. Soda Ash, food grade, used to raise the P/H (acidity/alkalinity) of the finished water. This is necessary to minimize the effects of corrosion in the distribution system.
- Sodium Chloride, Used to regenerate the exchange medium in the Ion Exchange Unit. This can
  result in a higher than normal Sodium content in the water which may be unacceptable to
  individuals on Sodium restricted diets. These effects can be minimized by using the bottled
  water which is available in all areas.

## **DEFINITIONS:**

The following definitions may prove helpful in understanding the rest of this report.

- 1. Maximum Contaminant Level (MCL), this is the highest level of a contaminant allowed in drinking water.
- 2. Action Level (AL), this is the threshold at which corrective action must be taken to lessen the exposure to a certain contaminant.
- 3. Parts per million (ppm) or Milligrams per liter (MG/L), one part per million equates to one minute in two years or to a single penny in 10 thousand dollars.
- 4. Parts per billion (ppb) or Micrograms per liter, one part per billion equates to one minute in 2,000 years or to a single penny in 10 million dollars.
- 5. Picocuries per liter (pCi/L), this is a measure of the radioactivity in water.

### HEALTH EFFECTS OF RADIUM IN DRINKING WATER:

Some people who drink water containing Radium 226/228 in excess of the Maximum Contaminant Level over a period of many years may have an increased risk of getting cancer. While our water is currently within the MCL for this contaminant, those wishing to further limit their exposure can make use of the bottled water provided in all locations.

## ADDITIONAL EDUCATIONAL INFORMATION:

The sources of drinking water, both tap and bottled, includes rivers, streams, lakes, ponds, reservoirs and wells. As water travels over the surface or through the ground it dissolves naturally occurring minerals, and in some cases radioactive material. It can also pick up contaminants resulting from the presence of animal or human activity.



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### ADDITIONAL PRECATIONAL IMPORTANTION:

The sources of drinking water, both tap and bottled, includes rivers, streams, lakes, ponds, reservoirs and wells. As water travels over the surface of through the ground if dissolves naturally occurring minerals, and in some cases radioactive material. It can also put up contaminants resulting from the presence of animal or human activity.

Contaminants that may be found in drinking water include:

- 1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic tanks, livestock and wildlife.
- 2. Inorganic Contaminants, such as salts and metals, which can be naturally occurring or result from storm water runoff, waste water discharge, oil and gas production, mining or farming.
- 3. Pesticides and herbicides which may come from a variety of sources such as agriculture, storm water runoff and residential uses.
- 4. Radioactive contaminants which may be naturally occurring or the result of oil and gas production, or mining activity.

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of these and other contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people who have HIV/AIDS, infants and some elderly may be particularly at risk. These people should seek advice from their healthcare provider on appropriate ways to lessen their risk of exposure.

All water plant records are part of the public domain and they can be reviewed by anyone who expresses a legitimate concern. Should you ever have any questions with regard to this report, or to the water supply at this Center, you may contact me at (410) 696-9399 ext. 9399.

This report was prepared by Carl Smith, the operator of The Woodstock Water Facility and submitted to The Maryland Department of the Environment for review.

The following table lists the most current results for the listed contaminants. To better understand these results remember to consult the list of definitions provided earlier in this report. If you have any questions with regard to these results please contact me on ext. 9399.

Thank You,

OAR Smith

Water Supply Program

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# WOODSTOCK WATER GUALITY REPORT FOR 2009

Contaminants that may be found in drinking water include:

- Muccobial correspondence such as viruses and buckera, which may come from sowage treatment plants, septic ranks, livestock and wildlife.
  - Inorganic Contaminants, such as salts and metals, which can be naturally occurring or result from storm water runoff, white water discharge, oil and gas production, mining or farming.
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Thank You.

		TEST R	ESULTS F	OR WO	ODSTOCK	
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contam	inants				1.7	Erosion of natural deposits .
Alpha emitters ,adjusted	N	11.5	pCi/1	0	15	
average) Beta/photon emitters	N	11.3	pCi/1	0	50	Decay of natural and man-made deposits
(average) Combined Radium 226 /	Y	8.1	pCi/L	0	5	Erosion of natural deposits
Inorganic Contamin	ants					
Fluoride	N	< 0.1	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	N	2.4	ppm	10	10	from septic tanks, sewage; erosion of
Copper (2006) (distribution)	N	0.26	ppm	1.3	AL=1.3	systems; erosion of natural deposits; leaching from wood preservatives
Lead (2006)	N	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
(distribution)  Synthetic Organic (	Contam	inants i	ncluding Pe	sticides	and Herbici	des
Di(2-ethylhexyl) phthalate	N	0.9	ppb	0	6	Discharge from rubber and chemical factories
Volatile Organic C	nntamir	ants	-			
TTHM (distribution) [Total	N	9.74	ppb	0	80	By-product of drinking water chlorination
trihalomethanes] HAA5 [Haloacetic Acids] (distribution)	N	2.35	ppb	0	60	By-product of drinking water chlorination
Unregulated Conta	minant	9				
Sodium	N	35.6	ppm	N/A	N/A	
Zinc	N	0.04	ppm	N/A	N/A	
Bromoform	N	2.1	ppb	N/A	N/A	chlorination
Bromodichloromethane	N	2.7	ppb	N/A	N/A	chlorination
Dibromocloromethane	N	3.6	ppb	N/A	N/.	chlorination
Sulfate	N	25	ppm	N/A	N/	A Erosion of natural deposits

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Woodstock Job Corp is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.

NOTE: As can be seen by results listed in the above tables, lead, which is tested for triennial (every 3 years) in accordance with Federal and State regulations in Woodstock Job Corp's distribution system, was not detected in our most recently collected samples.

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